PATENT SNR Matter No. 50047590-0059 Harman Docket No. P02017US

## **ABSTRACT**

This invention provides an acoustic waveguide with a continuous least-energy-surface formed from an upper vertical control curve, a lower vertical control curve, right horizontal control curve and a left horizontal control curve. In addition, a circular throat end and a non-elliptical closed control curve form a mouth such that the continuous least-energy-surface is coincident with the six control curves.